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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/822,121	03/30/2001	Antonio J. Colmenarez	US010080	8881

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P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

CHAN, WING F

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 04/08/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/822,121

Applicant(s)

COLMENAREZ ET AL.

Examiner

Wing F. Chan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2004 and 29 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. This office action is in response to the amendment filed 3/22/04. As directed by the amendment, claims 1, 2, 6, 7 were amended, new claim 25 was added. Thus, claims 1-25 are presently pending in this application.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 3, 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 3, line 4 "the multimodal integration architecture system" lacks antecedent basis.

Dependent claim 4 is also rejected for the same reason since they are dependent on a rejected base claim and contain the same problem(s).

5. Claims 1, 2, 5-8, 10-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Baker (US PAT. NO. 5,686,957).

Baker teaches a video conference system for locating the speaker comprising a stationary image pickup device (13), remaining motionless during operation, for generating image signals representative of an image, audio pickup device (21, 23, 25,

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27, 29) for generating audio signals representative of sound from an audio source (direction of the audio source), a processing means (inter alia 15, 17, 19; multimodal integration architecture) for processing the image signals and audio signals to determine a direction of the audio source relative to a reference point--note that Baker teaches that once the direction of the audio source is determined the associated image location is determined using this audio source information (for example see col. 7 lines 12-19), and to manipulate the video images to effectively provide at least one of variable pan, tilt, and zoom functions (for example note Baker col. 6 lines 25-28, col. 9 lines 5-14) in the same manner as disclosed by applicants. In Baker, note Fig. 2 where the transform processor engine correlates to the computer vision person detection system, and in Fig. 1, the audio processor correlates to the speaker detection system, the microphone array correlates to the audio sound localization system. Although Baker does not explicitly use processing the image and audio signals relative to a reference point, however such is inherent in Baker in that the camera is stationary and the microphones are stationary, and the audio and video signals are processed to perform pan, tilt, zoom (PTZ) functions on images picked up by the stationary camera, as such the PTZ is in reference to the location of the stationary camera in the same manner as disclosed by applicants, thus such processing relative to a reference point is inherent in Baker. Note entire patent.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baker in view of Potts et al (WO 99/60788 hereinafter Potts).

Regarding claims 3, 4, Baker differs from the claimed invention in not disclosing an integrated housing for housing the camera, microphones, electronics together. However, it is old and well known in the art to provide a portable integrated housing for housing the camera, microphones, electronics together, for example see Potts Figs. 1, 25 to provide a compact and space saving videoconferencing unit. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Baker to comprise a portable integrated housing for housing the camera, microphones, electronics together to provide a compact and space saving videoconferencing unit. Furthermore, it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893). Also, it has been held that making an old device portable or movable without producing any new and unexpected result involves only routine skill in the art. *In re Lindberg*, 93 USPQ 23 (CCPA 1952).

7. Claims 9, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baker in view of Chu et al (US PAT. NO. 5,778,082 hereinafter 'Chu).

Baker differs from the claimed invention in not disclosing the use of an array of two microphones. However, it is notoriously old and well known in the art to use spatially separated microphones to obtain the direction or location of speech or other acoustic signals from a common sound source identifying acoustic received signals representative of the sequence of signals, and determining the direction of the source

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based upon the acoustic received signals, for example see Chu. Chu also discloses it has applications to videoconferencing where it may be desirable to automatically adjust a video camera, such as by aiming the camera in the direction of a person who has begun to speak, for example see Chu's abstract, col. 1 lines 5-19, col. 2 lines 3-8. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Baker to use an array of two microphones to obtain the direction or location of speech or other acoustic signals from a common sound source identifying acoustic received signals representative of the sequence of signals, and determining the direction of the source based upon the acoustic received signals to automatically adjust a video camera, since it would produce the same results with relatively less components (microphones) and less cost.

8. Claims 1-8, 10-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Potts et al (WO 99/60788 hereinafter Potts) in view of Baker or Malkin et al (US PAT. NO. 6,704,048 filed 8/27/98, hereinafter Malkin).

Potts discloses a video conferencing system substantially as claimed, as acknowledged and admitted on page 7 second and third full paragraph of the remarks filed 2/26/04, except for the camera not being motionless during operation, e.g. Potts's camera does not have electronic pan, tilt, zoom (EPTZ).

However, it is old and well known in the art to replace mechanical pan, tilt, zoom cameras with camera that have electronic pan, tilt, zoom (EPTZ) to eliminate manual operation of the camera, improve reliability and reduce cost of the system, for example

see Baker col. 7 lines 26-38; Malkin col. 1 lines 16-28, col. 2 line 16 to col. 3 line 6. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Potts' camera to be a camera that have electronic pan, tilt, zoom (EPTZ) to eliminate manual operation of the camera, improve reliability and reduce cost of the system.

9. Claims 9, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Potts as modified by Baker or Malkin, as applied to claims 1-8, 10-24 above, and further in view of Chu et al (US PAT. NO. 5,778,082 hereinafter Chu).

Potts as modified by Baker or Malkin differs from the claimed invention in not disclosing the use of an array of two microphones. However, it is notoriously old and well known in the art to use spatially separated microphones to obtain the direction or location of speech or other acoustic signals from a common sound source identifying acoustic received signals representative of the sequence of signals, and determining the direction of the source based upon the acoustic received signals, for example see Chu. Chu also discloses it has applications to videoconferencing where it may be desirable to automatically adjust a video camera, such as by aiming the camera in the direction of a person who has begun to speak, for example see Chu's abstract, col. 1 lines 5-19, col. 2 lines 3-8. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Potts as modified by Baker or Malkin to use an array of two microphones to obtain the direction or location of speech or other acoustic signals from a common sound source identifying acoustic received

signals representative of the sequence of signals, and determining the direction of the source based upon the acoustic received signals to automatically adjust a video camera, since it would produce the same results with relatively less components (microphones) and less cost.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pingali (US PAT. NO. 6,005,610) discloses an audio-visual object localization and tracking system and method therefor.

Maeng et al (US PAT. NO. 6,707,489) discloses an automatic voice tracking camera system and method of operation.

11. Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

12. Applicant's arguments filed 2/26/04 regarding Baker have been fully considered but they are not persuasive. As set forth in the rejections above, it is inherent in Baker that the processing is relative to a reference point as claimed.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP


§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Examiner W. F. Chan** whose telephone number is 703-305-4732.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz, can be reached at 703-305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is 703-305-3900.



WING F. CHAN
SENIOR PRIMARY EXAMINER
TECHNOLOGY CENTER 2600

WFC
4/1/04